

Atty. Dkt. No. A54DIV1 (old)
Atty. Dkt. No. 03768-0177 (new)
Appl. No. 10/755,024

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for making nanoscale powders comprising:
selecting a precursor mixture comprising at least one metal containing substance;
treating the precursor mixture with at least one precipitating agent in a flow reactor system such that a product value of the axial velocity, the axial length and the inverse of the axial dispersion coefficient in the flow reactor system is more than 5;
wherein the treatment of the precursor mixture with the precipitating agent precipitates nanoscale powders comprising at least one metal containing precursor;
wherein the precipitated nanoscale powders are washed with a second metal containing substance; and
wherein the washed nanoscale powders are calcined in an environment rich in air, oxygen, hydrogen, nitrogen, and/or carbon to yield nanoscale powders chosen from oxides, metals, carbides, and nitrides.
2. (Original) The method of claim 1 wherein the precursor mixture comprises at least two metals.
3. (Original) The method of claim 1 wherein the precipitated nanoscale powder comprises hydroxide.
4. (Previously presented) The method of claim 1 wherein the product value is greater than 50.
5. (Previously presented) The method of claim 1 wherein the product value is greater than 500.

Atty. Dkt. No. A54DIV1 (old)
Atty. Dkt. No. 03768-0177 (new)
Appl. No. 10/755,024

6. (Original) The method of claim 1 wherein the second metal containing substance comprises an organometallic.
7. (Original) The method of claim 1 wherein the calcination is performed in air.
8. (Original) The method of claim 1 wherein the calcination is performed in an oxidizing atmosphere.
9. (Original) The method of claim 1 wherein the calcination is performed in a reducing atmosphere.
10. (Original) The method of claim 1 wherein the calcination is performed in a reactive atmosphere.
11. (Original) The method of claim 1 wherein the calcined nanoscale powders comprise oxygen.
12. (Original) The method of claim 1 wherein the calcined nanoscale powders comprise nitrogen.
13. (Original) The method of claim 1 wherein the calcined nanoscale powders comprise carbon.
14. (Original) The method of claim 1 wherein the calcined nanoscale powders comprise metal.
15. (Original) The method of claim 1 wherein the calcined nanoscale powders comprise non-metal.
- 16-18. (Canceled).

Atty. Dkt. No. A54DIV1 (old)
Atty. Dkt. No. 037'68-0177 (new)
Appl. No. 10/755,024

19. (Original) The method of claim 1 wherein the second metal containing substance comprises an element selected from the group consisting of: Ti, Zr, Si, Zn, Cu, Sn, Ce, Y and Al.

20. (Canceled).